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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,694	04/17/2001	Kazuyuki Miya	L9289.01132	2565
7590 06/28/2005				
Stevens Davis Miller & Mosher 1615 L Street N W Suite 850 Washington, DC 20036		EXAMINER NGUYEN, THUAN T		
		ART UNIT PAPER NUMBER		
		2685		

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,694

Applicant(s)

MIYA, KAZUYUKI

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to new claims 11-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent No. 6,501,788 B1) in view of Madkour et al. (US Patent No. 6,574,270 B1-on PTO-892 of the previous paper).

Regarding claims 11-14 for a radio reception apparatus of a communication base station for noise suppression or echo cancellation (please refer to Fig. 1 for a cellular communication system with base stations and mobile terminals together with a mobile switching office and a PSTN; and Figs. 4 with 4A & 4B for a complete view of radio reception apparatus for use within the cellular communication system):

As for claim 11, this claim is met as Wang shows the radio reception apparatus of Figure 3 with spreading sequence detector 340 and interference canceller 370 (col. 8/line 14 to col. 9/line 38) & Figure 4 with the illustration of Figure 4A & 4B for a spreading sequence detector 340 for detecting the reception signal spread/modulated using a

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spreading code (see col. 6/line 64 to col. 7/line 50 for spreading codes) as well as a controlling means under hardware/or software using a digital signal processor DSP (col. 10/lines 7-16) and an interference canceller (Fig. 4B, item 370; and col. 9/line 39 to col. 10/line 16 for a complete view).

Wang does not further address the spreading code being a specific known spreading code in a downlink channel and being for common use by a plurality of radio reception apparatuses and the controller controls the interference canceller as newly amended; however, Madkour teaches an exact same technique (refer to Madkour, Fig. 3/item 390 within the receiving radio system and a controller 370 for controlling the interference canceling on the downlink channel of the interference canceling receiver 390, and as illustrated in Fig. 5 as spreading codes on the receiving downlink channel, see col. 8/lines 22-41 & col. 9/lines 39-53 and col. 11/lines 1-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang's system with Madkour's teaching technique and the spreading codes on the downlink channel as well as the controlling of the spreading codes in order to control and detect an estimate of an interfering signal component of the baseband signal associated with the detected spreading sequences as taught by Madkour (col. 5/line 50 to col. 6/line 19).

As for claim 12, this limitation is met as Wang also uses a predetermined threshold value, and the interference canceller is performed as the received signal is exceeding the threshold value (col. 6/lines 46-61).

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As for claims 13-14, these limitations are met as Wang discloses the received signal is the packet signal and using transmission timing based on predetermined timing (Fig. 7, col. 1/lines 13-54 for wireless communication system using cellular digital packet data CDPD service; and col. 10/line 45 to col. 11/line 51 for timing process).

As for claims 15-16, these claims are for a communication terminal apparatus and a base station apparatus equipped with the radio reception apparatus defined by claim 11 are rejected for the reasons given as disclosed in claim 11 above.

Regarding claims 17-18, these claims are for a radio reception method for a radio reception apparatus, as addressed earlier in claims 11-14 are rejected for the reasons given in the scope of claims 11-14 above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

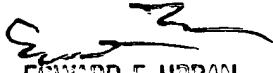
(703) 872-9306, (for Technology Center 2600 only)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895.

The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tony T. Nguyen
Art Unit 2685
June 8, 2005


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
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